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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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24126	7590	09/09/2005		
ST. ONGE STEWARD JOHNSTON & REENS, LLC 986 BEDFORD STREET STAMFORD, CT 06905-5619			EXAMINER LOPEZ, FRANK D	
			ART UNIT	PAPER NUMBER
			3745	

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/776,771

Applicant(s)

KADLICKO, GEORGE

Examiner

F. Daniel Lopez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-5 and 7-54 is/are rejected.
- 7) ☐ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/15/05</u> .   | 6) <input type="checkbox"/> Other: ____                                     |

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***Claim Rejections - 35 USC § 112***

Claims 17-19 and 32 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17 should depend from claim 16, to give "said planer surface" proper antecedent basis.

In claim 32 line 1-2 "said motors each include an actuator cylinder and a working piston extending from said actuator cylinder," should be deleted, sicne it repeats he limitation of claim 27 line 1-2.

Claims not specifically mentioned are indefinite, since they depend from one of the above claims.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 12, 14, 16, 20-23 and 25-27 are rejected under 35 U.S.C. § 102(b) as being anticipated by Heyl et al (see discussion below).

Claims 1, 12, 16, 17, 20-33, 43-47, 53 and 54 are rejected under 35 U.S.C. § 102(a) as being anticipated by Damtrew et al (see discussion below).

Claims 1-5, 12 and 14-17 are rejected under 35 U.S.C. § 102(b) as being anticipated by Ankeny et al. Figure 8 shows the pressure compensator valve and fig 9 and 9A shows the fluid bearing.

Claims 1-5, 12 and 14-16 are rejected under 35 U.S.C. § 102(b) as being anticipated by Thoma (see discussion below).

Claims 25-27 and 43 are rejected under 35 U.S.C. § 102(b) as being anticipated by Bethke.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 2-5, 14, 15 and 34-37 are rejected under 35 U.S.C. § 103 as being unpatentable over Dantrew et al in view of Thoma. Dantrew et al discloses a rotary hydraulic machine comprising a plurality of pistons (30) slidable in cylinders formed in a rotatable barrel (18); a swash plate (38) having a planer face engaged by the pistons; a bearing assembly (40) for supporting the swash plate for rotation about an axis in a housing; a pair of motors engaging respective ones of a pair of convex abutments, formed by cylindrical pins (60, 68) received in part cylindrical bores and protruding from the planer face, on opposite sides of the axis of rotation, to adjust its angle and thereby vary the stroke of the pistons; wherein the motors each include a working piston (52, 62) slidably received in a cylinder (56, 64), such that the cylinder engages with a respective one of the abutments; a fluid bearing between complementary surfaces of a housing and swash plate, for supporting the swash plate for rotation about an axis in a housing; wherein the fluid bearing (including 72, 74) is supplied with fluid from a source; but does not disclose that the fluid bearing is supplied with fluid from one of inlet and outlet ports feeding the plurality of pistons, by a flow control valve pressure compensated to maintain a predetermined rate of flow.

Thoma teaches, for a rotary hydraulic machine comprising a plurality of pistons (K) slidable in cylinders formed in a rotatable barrel (Z); inlet and outlet ports feeding the plurality of pistons; a swash plate (KW) having a planer face engaged by the pistons; a fluid bearing between complementary surfaces of a housing and swash plate, for supporting the swash plate for rotation about an axis in a housing; wherein the fluid bearing (including 72, 74) is supplied with fluid from a source; that the source of fluid supplied to the bearings is one of the inlet and outlet ports, via a flow control valve (k, fig 3) pressure compensated to maintain a predetermined rate of flow (through throttle DN when pressure is high enough).

Since Damtrew et al does not show the source of fluid for the fluid bearings and Thoma does; it would have been obvious at the time the invention was made to one having ordinary skill in the art to make the source of fluid supplied to the bearings of Damtrew et al one of the inlet and outlet ports, via a flow control valve pressure compensated to maintain a predetermined rate of flow, as taught by Thoma, as a matter of engineering expediency.

Claims 7-11, 13 and 48-52 are rejected under 35 U.S.C. § 103 as being unpatentable over Damtrew et al in view of Jepsen et al. Claims 38-42 are rejected under 35 U.S.C. § 103 as being unpatentable over Damtrew et al in view of Thoma, as applied to claim 37 above, and further in view of Jepsen et al. Damtrew et al and the modified Damtrew et al discloses all of the elements of claims 7-11, 13, 38-42 and 48-52; but does not disclose that one of the complementary surfaces has a nylon coating, formulated from a type II polyamide resin, applied to reduce friction.

Jepsen et al teaches, for a rotary hydraulic machine comprising a plurality of pistons (4) slidable in cylinders formed in a rotatable barrel (3); a swash plate (8) having a planer face engaged by the pistons; a fluid bearing between complementary surfaces of a shoe (6) of the piston and the swash plate, that one of the complementary surfaces has a nylon (polyamide) coating (7, column 5 line 59-62), for the purpose of reducing friction.

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Since Damtrew et al discloses a fluid bearing and Jepsen et al teaches coating a surface used as part of a fluid bearing; it would have been obvious at the time the invention was made to one having ordinary skill in the art to coat one of the complementary surfaces of Damtrew et al with a nylon coating, as taught by Jepsen et al, for the purpose of reducing friction

One of ordinary skill would recognize that there are various formulations for the nylon, including formulated from a type II polyamide resin. Therefore, It would have been obvious at the time the invention was made to one having ordinary skill in the art to make the nylon coating of Damtrew et al with a, formulated from a type II polyamide resin, as a matter of engineering expediency.

Claims 28-32, 44-46, 53 and 54 are rejected under 35 U.S.C. § 103 as being unpatentable over Bethke in view of Blasutta. Bethke discloses a rotary hydraulic machine comprising a plurality of pistons (23) slidable in cylinders formed in a rotatable barrel (20); a swash plate (28) having a planer face engaged by the pistons; a bearing assembly (303, 40) for supporting the swash plate for rotation about an axis in a housing; a pair of motors engaging respective ones of a pair of convex abutments, formed by cylindrical pins (60, 61) received in part cylindrical bores (see e.g. fig 3, as to how 61 is in a part cylindrical bore) and protruding from the planer face, on opposite sides of the axis of rotation, to adjust its angle and thereby vary the stroke of the pistons; wherein the motors each include a working piston slidably received in a cylinder (31, 32), such that the cylinder engages with a respective one of the abutments ; but does not disclose that the piston engages with a respective one of the abutments, or that the cylinder is received in a bore of the housing.

Blasutta teaches, for a rotary hydraulic machine comprising a plurality of pistons (46) slidable in cylinders formed in a rotatable barrel (43); a swash plate (58) having a planer face engaged by the pistons; a bearing assembly (62, 64) for supporting the swash plate for rotation about an axis in a housing; a pair of motors engaging respective ones of a pair of convex abutments, formed by cylindrical pins (75, 79) received in part cylindrical bores, on opposite sides of the axis of rotation, to adjust its angle and thereby

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vary the stroke of the pistons; wherein the motors each include a working piston (73, 80) slidably received in a cylinder (70, 81); that the piston engages with a respective one of the abutments, and that the cylinders are received in bores of the housing.

Since the motors of Bethke and Blasutta are functionally equivalent in the piston art; it would have been obvious at the time the invention was made to one having ordinary skill in the art to have respective ones of the abutments of Bethke engaged by the pistons, and have the cylinders received in bores of the housing, as taught by Blasutta, as a matter of engineering expediency.

Claims 24, 28-31, 33, 43-47, and 53 are rejected under 35 U.S.C. § 103 as being unpatentable over Heyl et al in view of Bethke. Heyl et al discloses a rotary hydraulic machine comprising a plurality of pistons slidable in cylinders formed in a rotatable barrel (e.g. column 4 line 17-21); a swash plate (3) having a planer face engaged by the pistons; a fluid bearing between complementary surfaces of a housing and swash plate, for supporting the swash plate for rotation about an axis in a housing; wherein the fluid bearing is supplied with fluid from one of inlet and outlet ports feeding the plurality of pistons (via 16, 17); a pair of motors, each include a working piston (6, 10) slidably received in a cylinder (7, 11), such that the cylinder engages the planer face of the swash plate, on opposite sides of the axis of rotation, to adjust its angle and thereby vary the stroke of the pistons; but does not disclose that the piston engages with a respective one of a pair of convex abutments formed by cylindrical pins inserted into part cylindrical recesses in the planer face of the swash plate.

Bethke teaches, for a rotary hydraulic machine comprising a plurality of pistons (23) slidable in cylinders formed in a rotatable barrel (20); a swash plate (28) having a planer face engaged by the pistons; a bearing assembly (303, 40) for supporting the swash plate for rotation about an axis in a housing; a pair of motors engaging the planer face, on opposite sides of the axis of rotation, to adjust its angle and thereby vary the stroke of the pistons; that each motor engages respective ones of a pair of convex abutments, formed by cylindrical pins (60, 61) received in part cylindrical bores (see e.g. fig 3, as to how 61 is in a part cylindrical bore) and protruding from the planer face.

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Since the connections between the motors and planer face of Heyl et al and Bethke are functionally equivalent in the piston art; it would have been obvious at the time the invention was made to one having ordinary skill in the art to have each motor of Heyl et al engage respective ones of a pair of convex abutments, formed by cylindrical pins received in part cylindrical bores and protruding from the planer face, as taught by Bethke, as a matter of engineering expediency.

Claims 17-19 are rejected under 35 U.S.C. § 103 as being unpatentable over in view of Heyl et al in view of Okada et al. Heyl et al discloses all of the elements of claims 17-19, as discussed in the above rejection; but does not disclose that slippers are secured to respective pistons by a universal joint and engage the planer surface, provided by an annular insert located within a body of the swash plate; or that the slippers are maintained in contact with the insert by a retaining plate having apertures therein, with clamps securing the retaining plate to the swash plate.

Okada et al teaches, for a rotary hydraulic machine comprising a plurality of pistons (12) slidable in cylinders formed in a rotatable barrel (4); a swash plate (8) having a planer face engaged by the pistons; that slippers (16) are secured to respective pistons by a universal joint and engage the planer surface, provided by an annular insert located within a body of the swash plate; with the slippers maintained in contact with the insert by a retaining plate having apertures therein, with clamps (17) securing the retaining plate to the swash plate.

Since Heyl et al doesn't show details of the connection between the piston and the swash plate, and Okada et al does, it would have been obvious at the time the invention was made to one having ordinary skill in the art to secure slippers to respective pistons of Heyl et al, by a universal joint, wherein the slippers engage the planer surface, provided by an annular insert located within a body of the swash plate; with the slippers maintained in contact with the insert by a retaining plate having apertures therein, with clamps securing the retaining plate to the swash plate, as taught by Okada et al, as a matter of engineering expediency.



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**Conclusion**

Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Lopez whose telephone number is 571- 272-4821. The examiner can normally be reached on Monday-Thursday from 6:15 AM -3:45PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Look, can be reached on 571-272-4820. The fax number for this group is 571-273-8300. Any inquiry of a general nature should be directed to the Help Desk, whose telephone number is 1-800-PTO-9199.

A handwritten signature in black ink, appearing to read 'F. Daniel Lopez', with a stylized flourish at the end.

F. Daniel Lopez  
Primary Examiner  
Art Unit 3745  
September 6, 2005